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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,219	03/05/2001	Srinivas Gutta	US010050 (834-53)	3342

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER
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BONSHOCK, DENNIS G

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 01/14/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/800,219

Applicant(s)

GUTTA ET AL.

Examiner

Dennis G Bonshock

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**Final Rejection**

***Response to Amendment***

1. It is hereby acknowledged that the following papers have been received and placed on record in the file: Amendment A as received on 11-13-2003.

2. Claims 1-17 have been examined.

Status of Claims:

3. Claims 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Mizuno, Patent # JP 406141309.

4. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeong, Patent # 6,348,928 and Lyons et al., Patent # 6,176,782, hereinafter Lyons.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Mizuno, Patent # JP 406141309. With regards to claim 16, which teaches that there is a video display screen, which comprises an audio capturing device, the use of speech recognition software, and adjusting the display screen based on audio commands. Mizuno teaches a voice communication terminal equipped with a image display means,

the direction of which is changed based on vocal sampling through 2 audio capturing devices (see column 2, line 18). With regards to claim 17, which teaches that one or more audio commands are correlated to movement. Mizuno teaches the use of voice commands to move a display device (see column 2, line 18).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeong, Patent # 6,348,928 and Lyons et al., Patent # 6,176,782, hereinafter Lyons.

With regard to claim 1, Jeong teaches a video display screen that automatically pivots to face the user (see column 1, line 35), and measures the position of the user (see column 1, line 62). Jeong, however, doesn't teach the use of an image capturing device, or image recognition software. Lyons teaches a motion-based display similar to that of Jeong, but further teaches the use of camera for taking an image of the user (see column 1, line 22), and a vision recognition part (see column 4, page 50). It would have been obvious to one of ordinary skill in the art, having the teachings of Jeong and Lyons before him at the time the invention was made to modify the automatic rotating visual display of Jeong to include the ability to judge the location of the viewers via a visual recognition system, of Lyons. One would have been motivated to make such a combination because a vision recognition system can function in some environments

where the use of a heat sensing system would be unusable. In both systems a user in a three-dimensional space controls functions of a screen by their movements, which are conveyed to the device through a sensing unit or sensing units.

9. With regard to claim 2, and in reference to what was previously rejected in claim 1, Lyons further teaches that the display could be projection compatible. In column 1, line 35, Lyons teaches that the system is arranged to compare the camera-recorded image with the original image fed to the projector.

10. With regard to claim 3, and in reference to what was previously rejected in claim 1, Jeong further teaches that the display screen can be a screen in a home theater system. In column 1, line 6, Jeong teaches the automatic rotation of a TV stand.

11. With regard to claim 4, and in reference to what was previously rejected in claim 1, Jeong further teaches that the display adjusts so that the normal to the display screen faces the user. In column 1, line 62, Jeong teaches that the central axis of the display screen of the visual display unit be placed at the center of the discriminated angle.

12. With regard to claim 5, and in reference to what was previously rejected in claim 4, Lyons further teaches that there be a measurement based on the pose of the users face. In column 8, line 28, Lyons teaches that the use of the position of the eye (which is given offset from the head portion) and the hand to find what a gesture is referring to.

13. With regard to claims 6 and 7, and in reference to what was previously rejected in claim 5, Jeong further teaches that there is a measurement of an angular displacement of the user with respect to the reference axis and that the control unit rotates the display screen the normal vector to the display screen has the angular

displacement of the user with respect to the reference axis. In column 1, line 62, Jeong teaches performing an arithmetic operation so as the central axis of the display screen of the visual display unit be placed at the center of the discriminated angle, and then rotating the display screen of the visual display unit according to the result of the arithmetic operation.

14. With regard to claim 8, and in reference to what was previously rejected in claim 4, Lyons further teaches that there is a measurement determined by the position of the user in an image, by image recognition software. In column 4, lines 50-44, Lyons teaches that the vision recognition part determines the current pose of the user and calculates the position of the pointing hand of the user (this could not be done without the use of some image recognition software).

15. With regard to claim 9, and in reference to what was previously rejected in claim 8, Jeong further teaches that there be a measurement that is an angular displacement of the user with respect to a reference axis. In column 1, line 62, Jeong teaches performing an arithmetic operation so as the central axis of the display screen of the visual display unit be placed at the center of the discriminated angle, and then rotating the display screen of the visual display unit according to the result of the arithmetic operation.

16. With regard to claim 10, and in reference to what was previously rejected in claim 9, Jeong further teaches that there is a control unit that rotates the display so that the normal vector has an angular displacement of the user with respect to the reference axis. In column 1, line 62, Jeong teaches performing an arithmetic operation so as the

central axis of the display screen of the visual display unit be placed at the center of the discriminated angle, and then rotating the display screen of the visual display unit according to the result of the arithmetic operation.

17. With regard to claim 11, and in reference to what was previously rejected in claim 1, Jeong further teaches that the control unit identifies two of more users and records their average position. In column 4, line 10, Jeong teaches sensing the position of both viewers and then making maximum angle there between.

18. With regard to claim 12, and in reference to what was previously rejected in claim 11, Jeong further teaches rotating the screen to face the two of more users recorded average position. In column 4, line 10, Jeong teaches sensing the position of both viewers and then making maximum angle there between, and in column 1, line 36, rotating the screen accordingly.

19. With regard to claim 13, Jeong teaches a video display screen that automatically pivots to face the user (see column 1, line 35). Jeong, however, doesn't teach the use of an image-capturing device, image recognition software, or adjusting the orientation of the display screen based upon the identified gesture of the user in the image. Lyons teaches a motion-based display similar to that of Jeong, but further teaches the use of camera for taking an image of the user (see column 1, line 22), a vision recognition part (see column 4, page 50), and the ability for the system to react to the user giving a gesture (see column 1, line 10). With regard to the image capturing means: It would have been obvious to one of ordinary skill in the art, having the teachings of Jeong and Lyons before him at the time the invention was made to modify the automatic rotating

visual display of Jeong to include the ability to judge the location of the viewers via a visual recognition system. One would have been motivated to make such a combination because a vision recognition system can function in some environments where the use of a heat sensing system would be unusable. With regard to the ability to capture gestures: It would have been obvious to one of ordinary skill in the art, having the teachings of Jeong and Lyons before him at the time the invention was made to modify the automatic rotating visual display of Jeong to include gesture recognition of Lyons. One would have been motivated to make such a combination because this would allow the user to select somewhere other than him self as a place to focus the video. In both systems a user in a three-dimensional space controls functions of a screen by their movements, which are conveyed to the device through a sensing unit or sensing units.

20. With regard to claim 14, and in reference to what was previously rejected in claim 13, Lyons further teaches that one or more gestures are hand gestures. In column 1, line 10, Lyons teaches allowing the user to physically point to perform an action.

21. With regard to claim 15, and in reference to what was previously rejected in claim 14, Lyons further teaches that each hand gesture is correlated to a movement. In column 5, line 15, Lyons teaches the use of a specific hand gesture corresponding to a particular operation.

### ***Response to Arguments***

22. The arguments filed on 11-13-2003 have been fully considered by they are not persuasive. The reasons are set forth below.



23. On pages 6 and 7, the applicant argues in regards to claims 16 and 17 in essence:

"Applicants respectfully traverse the Examiner's rejection under 35 U.S.C. 102(e) for at least the reasons set forth below. Mizuno teaches a system in which a display monitors voices with one or two microphones and adjusts the direction of the display based on the detected volume of the voices." Which the applicants state is "very different from the present invention".

24. With respect to the applicants argument, that "the Mizuno reference does not disclose or suggest *"a control unit having speech recognition software that identifies one or more audio commands spoken by a user in the viewing region, the control unit invoking an adjustment of the orientation of the display screen based upon the identified audio commands received from the user."*

25. In response, the examiner respectfully submits that the voice sample collecting means of Mizuno acts as a controller that takes voice samples and identifies the position of a viewer and moves the target direction accordingly (see column 2, line 18). As the user moves around the space the controller measures the volume through the two microphones and determines which position to angle the monitor.

26. With respect to the applicant's argument, that neither the Jeong nor Lyons references disclose or suggest "... a control unit having image recognition software that identifies the user in an image generated by the image capturing device..."

27. In response, the examiner respectfully submits that Lyons does teach this limitation; in it's vision recognition part that captures an image and performs a processing step, which adapts the movements to the software (see column 4, line 50).

28. With respect to the applicant's argument, that neither the Jeong nor Lyons references disclose or suggest "... the control unit invoking an adjustment of the orientation of the display screen based upon the identified gesture of the user in the image..."

29. In response, the examiner respectfully submits that Jeong does teach this limitation, when he states that the display is automatically rotated based upon the location of the viewer" (see column 1, line 35). Rotation based on the position requires some sort of controller.

30. With respect to the applicant's argument, that there isn't sufficient motivation on page 3 of the office action, in the motivation that the references could be combined "because a vision recognition system can function in some environments where the use of heat sensing system would be unusable."

31. In response, the examiner respectfully submits that there would be problems with using a heat sensitive system in a room with a fireplace, heater, etc. This requires an alternate means of rotating a display to the direction of a user, in which a different sensing device would be the obvious choice. In both systems a user in a three-dimensional space controls functions of a screen by their movements, which are conveyed to the device through a sensing unit or units.

32. In response to applicant's argument that the examiner used hindsight based on the teachings of the present disclosure, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

33. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

### ***Conclusion***

34. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

35. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

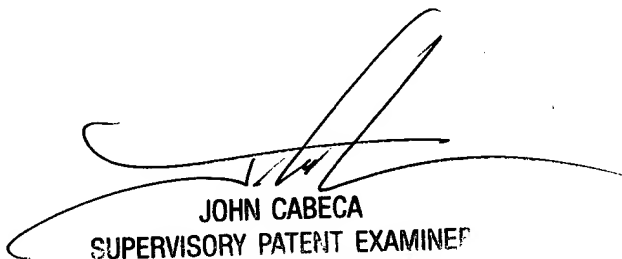
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis G. Bonshock whose telephone number is (703)305-4668. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

37. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703)308-3116. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7239.

38. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

dgb



JOHN CABECA  
SUPERVISORY PATENT EXAMINER  
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